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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,241	04/03/2001	Mark A. Hughes	922-128	8894

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EXAMINER	
LY, ANH VU H	

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/824,241	HUGHES ET AL.	
	Examiner	Art Unit	
	Anh-Vu H. Ly	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 26, 2005 has been entered.

Claim Objections

2. Claims 1-2, 4, 7 and 8 are objected to because of the following informalities:

With respect to claim 1, in line 8, "that they control" is unclear. It is unclear whether "they", as presented, being referred to the packets or the switch.

With respect to claim 2, in line 1, "which the step" lacks antecedent basis.

With respect to claim 4, in lines 3-4, "said TCP packet" lacks antecedent basis.

With respect to claim 7, in line 2, "other packets" is unclear. As is known in the art, there are two types of packet, data packets and/or control packets. Therefore, it is unclear what other packets being referred to as "other packets". Further, in line 4, "said TCP packets" lacks antecedent basis.

With respect to claim 8, in line 2, "the logic for snooping" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al (US Patent No. 6,553,031 B1). Hereinafter, referred to as Nakamura.

With respect to claims 1 and 4, Nakamura discloses (col. 15, lines 1-7) that the processing of the second and subsequent packets sent out from the data communication terminal 400A, the necessary routing information has already been registered in the sub routing table 15 of the line interface board 1-1. Therefore, each received packet can be immediately subjected to routing processing without the support of the route management unit 5 (after switch routing table entries have been established to set up a messaging connection and during ongoing use of such established connection). Nakamura discloses (col. 13, lines 15-20) that as to a packet received from a TCP terminal, it is possible to determine the entry priority of routing information by extracting the seventh byte of the TCP header including the SYS bit and FIN bit by the control information extractor circuit 16 of the switch (a packet passing through the established switch

connection is a TCP control packet). Nakamura discloses (col. 13, lines 27-40 and Figs. 10 and 12) that the control information extractor circuit 16 may extract the seventh byte of TCP header in which the TCP code bit regions is located. If the 19th byte (seventh byte of TCP header) is found to be effective (determining whether the packet is a TCP control packet), e.g., including the code bits of TCP, the establishment or disconnecting of the connection may be determined according to the logical OR of the check result of the SYS bit and FIN bit in the TCP code bit region. Nakamura discloses (col. 14, lines 46-49) that a status value "1" is set to an entry priority 154 because the connection establishment flag was detected from the leading packet. Herein, the assigned priority refers to the connection establishment flag (control packet), which is different from the priority of user data packets (assigning priority to such determined TCP control packets that is different to the priority of the data packets that they control).

With respect to claims 2 and 5, Nakamura discloses (col. 13, lines 27-40 and Figs. 10 and 12) that the control information extractor circuit 16 may extract the seventh byte of TCP header in which the TCP code bit regions is located. If the 19th byte (seventh byte of TCP header) is found to be effective, e.g., including the code bits of TCP, the establishment or disconnecting of the connection may be determined according to the logical OR of the check result of the SYS bit and FIN bit in the TCP code bit region (checking the flag bits within the TCP header and establishing if any flag other than a PSH flag bit is set).

With respect to claims 3, 6, and 8, Nakamura discloses (col. 13, lines 6-8) that the fifth bit and sixth bit of the code bit region are sued as a synchronous (SYS) bit and a transfer finish

(FIN) bit (in which packets having a flag bit other than PSH set are assigned an increase priority relative to those the PSH flag bit set).

With respect to claim 7, Nakamura discloses in Fig. 1, a switch comprises plurality of line interface boards (a multiplicity of ports for receiving and transmitting TCP packets). Nakamura discloses (col. 15, lines 1-7) that the processing of the second and subsequent packets sent out from the data communication terminal 400A, the necessary routing information has already been registered in the sub routing table 15 of the line interface board 1-1. Therefore, each received packet can be immediately subjected to routing processing without the support of the route management unit 5 (receiving and transmitting TCP packets in accordance with previously established routing table entries). Nakamura discloses (col. 13, lines 15-20) that as to a packet received from a TCP terminal, it is possible to determine the entry priority of routing information by extracting the seventh byte of the TCP header including the SYS bit and FIN bit by the control information extractor circuit 16 of the switch (packets that are being transported in accordance with previously established routing table entries). Nakamura discloses (col. 13, lines 27-40 and Figs. 10 and 12) that the control information extractor circuit 16 may extract the seventh byte of TCP header in which the TCP code bit regions is located. If the 19th byte (seventh byte of TCP header) is found to be effective (determining whether the packet is a TCP control packet), e.g., including the code bits of TCP, the establishment or disconnecting of the connection may be determined according to the logical OR of the check result of the SYS bit and FIN bit in the TCP code bit region. Nakamura discloses (col. 14, lines 46-49) that a status value "1" (means for allocating a priority to TCP packets within the switch) is set to an entry priority

154 because the connection establishment flag was detected from the leading packet. Herein, the assigned priority refers to the connection establishment flag (control packet), which is different from the priority of user data packets (assigning priority to control packet that is different to the priority of the data packets that they control).

Response to Arguments

4. Applicant's arguments filed July 26, 2005 have been fully considered but they are not persuasive.

Applicant argues in page 5 that Nakamura deals only with the updating of routing tables and does not relate to the handling of TCP packets within a switch after switch routing table entries have been established to set up a messaging connection and during ongoing use of such established connection.

Examiner respectfully disagrees. Nakamura discloses (col. 15, lines 58-61) that the entries with the priority in the "1" state, indicate that their connections continue at present and the subsequent packets which require the registered entries are expected to arrive. This implies that the switch continues to monitor for the subsequent packets, after the connection has already set up and during ongoing use of such established connection, checking the code bits in the TCP header and determining its priority.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

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